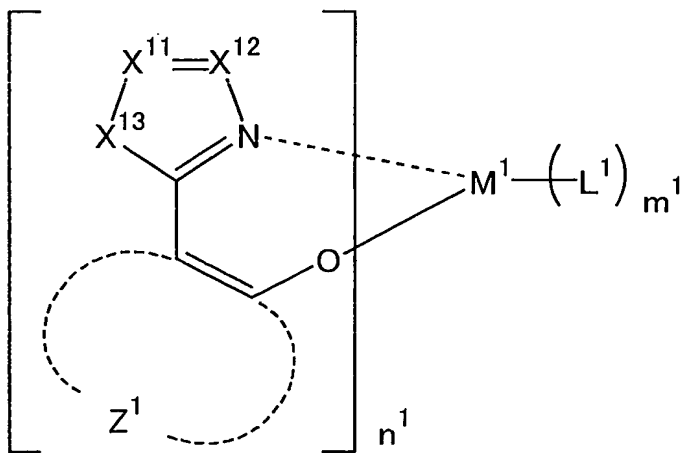


CLAIMS

1. An organic electroluminescent device comprising:
 a pair of electrode; and
 at least one organic layer between the pair of electrode,
 the at least one organic layer including a luminescent layer,
 wherein the luminescent layer contains at least one
 phosphorescent material and at least one compound represented
 by the formula (I):



(I)

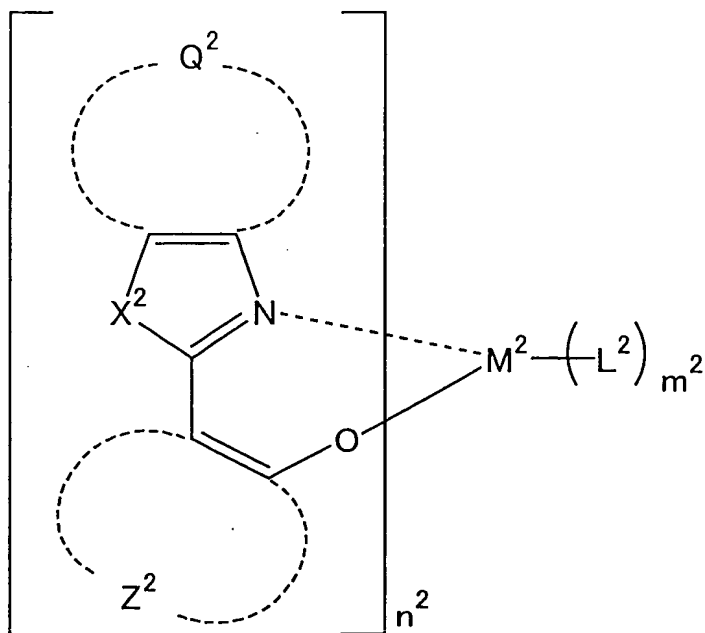
wherein X^{11} represents a nitrogen atom or $C-R^{11}$; X^{12} represents a nitrogen atom or $C-R^{12}$; R^{11} and R^{12} each represents an aryl group or an atomic group necessary for forming a heterocycle upon connection between R^{11} and R^{12} ; X^{13} represents an oxygen atom, a sulfur atom, $-C(R^{13})R^{14}-$, or $-NR^{15}-$; R^{13} , R^{14} , and R^{15} each represents a hydrogen atom or a substituent; Z^1 represents an atomic group necessary for forming a 5-membered or 6-membered

ring; M^1 represents a metal ion; n^1 represents an integer of 1 or more; L^1 represents a ligand; and m^1 represents an integer of 0 or more.

2. The organic electroluminescent device of claim 1, wherein a content of the compound of the formula (I) is from 50 % to 99.9 % by weight in the luminescent layer.

3. The organic electroluminescent device of claim 1, wherein a content of the compound of the formula (I) is from 60 % to 99 % by weight in the luminescent layer.

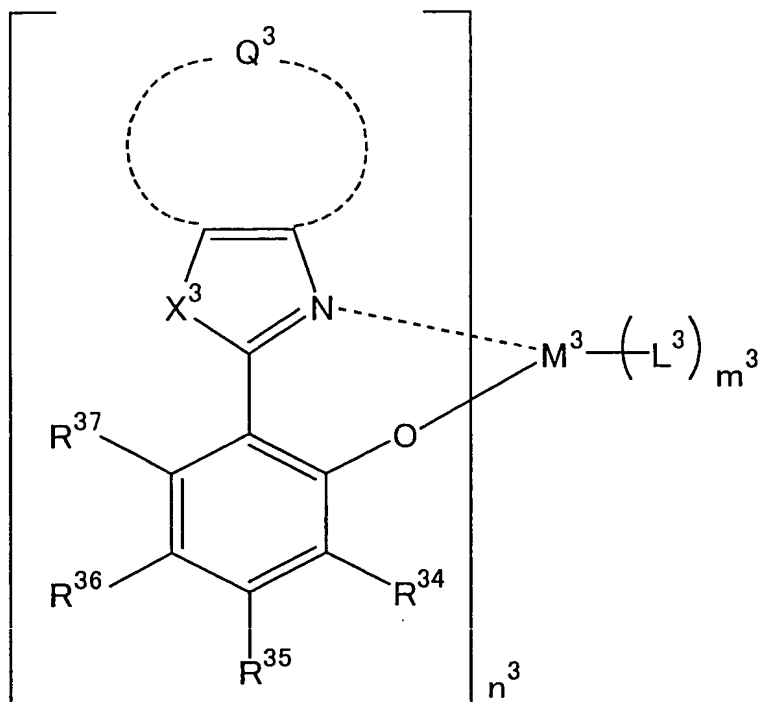
4. The organic electroluminescent device of claim 1, wherein the compound of the formula (I) is a compound represented by the formula (II):



(II)

wherein Q² represents an atomic group necessary for forming a heterocycle; X² represents an oxygen atom, a sulfur atom, -C(R²¹)R²²-, or -NR²³-; R²¹, R²², and R²³ each represents a hydrogen atom or a substituent; Z² represents an atomic group necessary for forming a 5-membered or 6-membered ring; M² represents a metal ion; n² represents an integer of 1 or more; L² represents a ligand; and m² represents an integer of 0 or more.

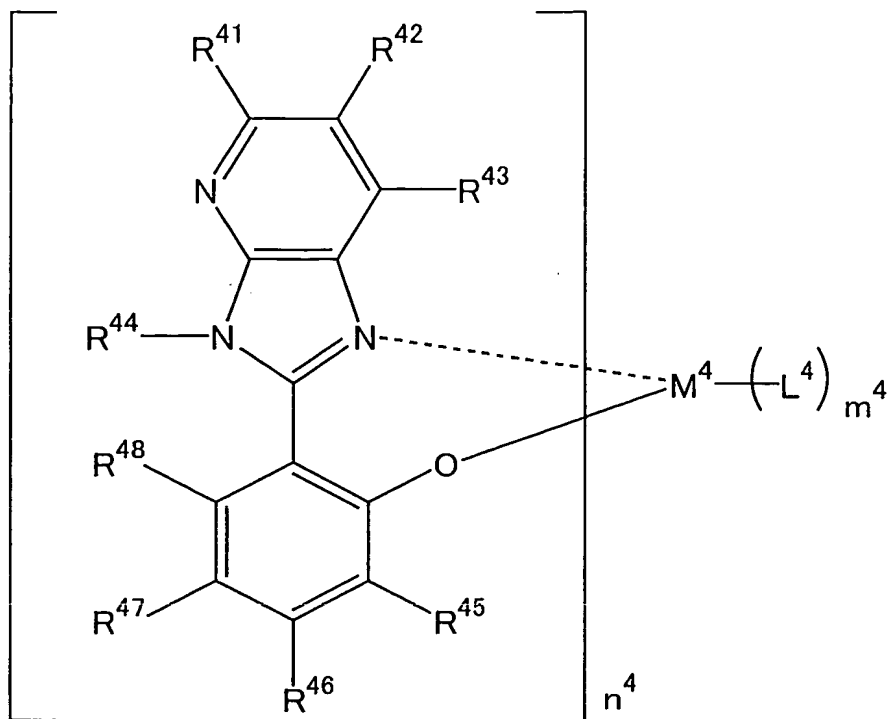
5. The organic electroluminescent device of claim 1, wherein the compound of the formula (I) is a compound represented by the formula (III):



(III)

wherein Q^3 represents an atomic group necessary for forming a 6-membered nitrogen-containing heterocycle; X^3 represents an oxygen atom, a sulfur atom, $-C(R^{31})R^{32}-$, or $-NR^{33}-$; R^{31} , R^{32} , and R^{33} each represents a hydrogen atom or a substituent; R^{34} , R^{35} , R^{36} , and R^{37} each represents a hydrogen atom or a substituent; M^3 represents a metal ion; n^3 represents an integer of 1 or more; L^3 represents a ligand; and m^3 represents an integer of 0 or more.

6. The organic electroluminescent device of claim 1, wherein the compound of the formula (I) is a compound represented by the formula (IV):

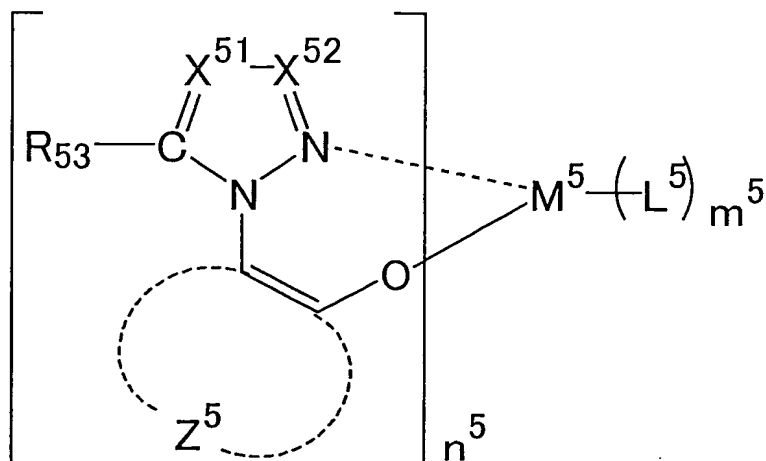


(IV)

wherein R^{41} , R^{42} , R^{43} , R^{44} , R^{45} , R^{46} , R^{47} , and R^{48} each represents a hydrogen atom or a substituent; M^4 represents a divalent or trivalent metal ion; n^4 represents an integer of from 1 to 3; L^4 represents a ligand; and m^4 represents an integer of from 0 to 2.

7. An organic electroluminescent device comprising:
 a pair of electrode; and
 at least one organic layer between the pair of electrode,
 the at least one organic layer including a luminescent layer,
 wherein the luminescent layer contains at least one

phosphorescent material and at least one compound represented by the formula (V):



(V)

wherein X^{51} represents a nitrogen atom or C-R^{51} ; X^{52} represents a nitrogen atom or C-R^{52} ; R^{51} and R^{52} each represents a hydrogen atom or a substituent; R^{53} represents a hydrogen atom or a substituent; Z^5 represents an atomic group necessary for forming a 5-membered or 6-membered ring; M^5 represents a metal ion; and n^5 represents an integer of 1 or more; L^5 represents a ligand; and m^5 represents an integer of 0 or more.